SALMON FISHERIES OCEAN MONITORING

Estimated Project Cost:
$15 Million
for monitoring from Point Sur to the Oregon border

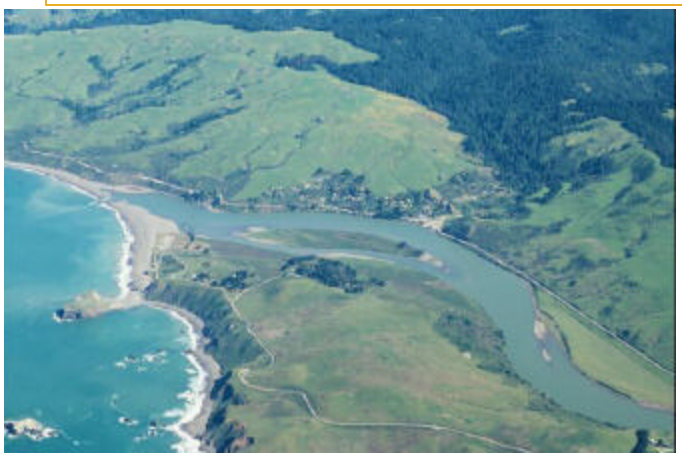
DESCRIPTION:
- Better describe and monitor circulation and upwelling in the plume areas of the Russian River and other northern California streams
- Monitor various ocean water quality parameters to characterize variations influencing salmon abundance
- Deployment of high-frequency coastal radar (CODAR) units and moorings for data collection
- Equipment will be deployed between Point Reyes and Stewart's Point, where the CODAR will measure surface water currents
- Mooring will collect data on subsurface currents as well as water quality parameters that provide indices of ocean productivity (e.g. the quantity of food available for salmon)
- Data will be used to develop preliminary circulation and productivity models
- Ocean monitoring will be conducted in conjunction with similar efforts being undertaken along the Pacific Coast by the Scripps Institute of Oceanography under the Wind Events in Shelf Transport (WEST) project

PROJECT GOAL

Provide information on how oceanic conditions affect salmonid survival, which is essential for the long-term assessment of coastal salmon recovery.

POTENTIAL PARTNERSHIPS:
- California Coastal Conservancy
- Scripps Institute of Oceanography
- Oregon State University
- Sonoma County Water Agency
- University of California, Bodega Marine Laboratory
- University of Washington

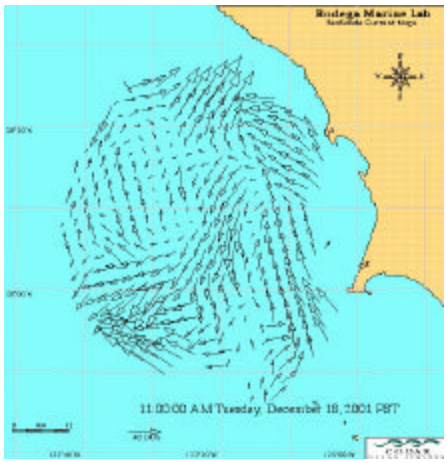
SALMON FISHERIES OCEAN MONITORING



Russian River Estuary
Salmon spend approximately 75 percent of their life in the ocean, but little is known about how ocean conditions influence salmonid survival and abundance.

To effectively evaluate future changes in management practices within the Russian River watershed, it is imperative to differentiate between impacts to salmon populations due to changes in ocean conditions or due to changes in watershed management practices.

CODAR units will be deployed in areas not currently addressed by existing monitoring equipment



Surface water currents measurements from CODAR units

Additional information that will be collected for this ocean monitoring project has been specifically designed to integrate with other projects being conducted or coordinated by Bodega Marine Laboratory. One of these projects is the development of a model to predict salmon survival under various ocean conditions. The model will be based on data collected from this project and other ocean monitoring studies.